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This document contains information
referring to Project **CHALICE**

24 October 1958
CHAL-0367
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MEMORANDUM FOR: Special Assistant to the Director
for Planning and Development

THRU : Deputy Director, DPS/DCI

SUBJECT : Rear View Mirror

REFERENCE : CHAL-0277

1. In answer to your memorandum dated 6 August concerning the
[] rear view mirror installation, the following is a recap of action
taken:

2. On or about 15 August, the [] drawings and photographs showing
the exterior mounted rear view mirror installation were sent to [].
[] was requested to run functional flight tests on this item to deter-
mine exactly how accurately the pilot could see his own contrail.

3. On 21 October [] was requested to furnish
information concerning the rear view mirror. This query was answered
on 22 October []. The following information is extracted
from the [] answer:

"1. Reference mirror installed on 378. Effect on performance
estimated to be negligible.

"2. Functional flight tests showed following:

"a. In climb, observing airplanes can see contrail
approximately 4500 feet before pilot can see in mirror.

"b. Contrails still exist for approximately 4500 feet
after pilot stops seeing them.

"c. In descent the difference between mirror and
observer is less.

"d. In gust position, contrails can be seen sooner and
longer."

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4. Information available in this office does not indicate that any tests were made concerning the ability of the pilot to detect intercept aircraft. It is planned to request [] to perform functional tests in order to determine if the rear view mirror is effective along this line. These tests will be run in conjunction with other activities at []. A possibility to incorporate these tests with the [] tests exists.

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5. It may be noted in [] para 3, that [] #349 has a modified mirror installed which is slightly cleaner and allows some adjustment. When 349 is in position at [] we will request [] pilots to comment on this modified mirror installation.

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6. Based on information received from [] and indications from [] tests, it is felt that the drag is negligible. It is Operation's opinion that this installation is a valuable asset. The need will increase as time goes on, consistent with estimates of future Russian capabilities to intercept. With your approval Operation's will request [] to investigate the feasibility of coming up with one suitable answer to the Central-intercept problems.

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SIGNED

COL [] DEAF
Director of Operations

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DPS/DCI/WFH:vrs

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